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10/675,002	09/30/2003	Brian K. Campbell	EMC-03-046	5206

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EXAMINER	
ALPHONSE, FRITZ	

ART UNIT	PAPER NUMBER
2112	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/675,002	CAMPBELL ET AL.	
	Examiner	Art Unit	
	Fritz Alphonse	2112	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 June 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

0.1 This Office Action is in response to the amendment filed on 7/18/2007. Claims 1-20 are pending.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 10-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Hagiawara (U.S. Pat. No. 5,450,419).

As to claim 10, Hagiawara (fig. 1) shows a data transmission system comprising: a transmission device (i.e., main controller 2) for transmitting command data elements to a downstream device, the command data elements being generated and transmitted according to a predetermined protocol; and a reception device (i.e., nodes 3-1 to 3-n) for receiving response data elements from the downstream device, the reception device including a protocol checking device for checking at least one state of the response data elements to determine the validity of the at least one state of the response data elements col. 3, lines 10-49).

As to claim 11, Hagiawara (fig. 1) shows a system, wherein the at least one state of the response data elements includes a data structure of the response data elements (col. 4, lines 10-16).

As to claims 12-13, Hagiawara does not explicitly disclose the protocol checking device

transmits a status signal to the transmission device to notify the transmission device of the invalidity. However, the limitation is obvious and well known in the art, as evidenced by Parr (see paragraph [0023 and 0028]). See the motivation for the same reason disclosed in claim 1 above.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-2 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hagiawara (U.S. Pat. No. 5,450,419) in view of Parr (US Pub. 2002/0194571).

As to claims 1 and 6, Hagiawara discloses an error checking method an apparatus comprising: an input device (i.e., input circuit 30) for receiving a data element including parity information; a parity check device (i.e., CRC check 33) for checking the parity information of the data element to determine whether the data element is valid; a CRC generator (i.e., CRC error code addition 39) coupled to the parity check device (33) for generating a CRC for the data element. In addition, Hagiawara (fig. 3) discloses an output device (35) for transmitting the data element with the parity information and CRC to a downstream device over a transmission link (col. 3, lines 60 through col. 4 line 5).

Hagiawara does not explicitly teach the parity check device is operative to output a corruption signal to the CRC generator if the parity check device determines that the data

element is invalid, to instruct the CRC generator to corrupt the CRC generation for that data element.

However, in the same field of endeavor Parr discloses a system and method of coding cyclic redundancy check bits wherein parity check device is operative to output a corruption signal to the CRC generator if the parity check device determines that the data element is invalid (see paragraph [0023 and 0028]).

Therefore, it would have been obvious to a person of ordinary skill in the art, at the time of the invention to combine Hagiawara's error checking apparatus with the system and method of coding cyclic redundancy check bits, as disclosed by Parr. Doing so would provide a system for reducing interference between communications occurring on the same frequency in different beams of a satellite communications network.

As to claim 2, Hagiawara discloses an error checking method further comprising transmitting the data element with the parity information and CRC to a downstream device over a transmission link (figs. 1- 3;col. 3, lines 60 through col. 4 line 5).

5. Claims 3-5, 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hagiawara and Parr as applied to claims 1 and 6 above, and further in view of Hong (U.S. Pat. No. 5,903,301).

As to claims 3-5 and 7-9, Hagiawara does not explicitly disclose transmitting an alarm signal to the downstream device if the generation of the CRC has been corrupted. However, the limitation is obvious and well known in the art, as evidenced by Hong (col. 4, lines 20-44).

Therefore, it would have been obvious to a person of ordinary skill in the art, at the time of the invention to improve upon the apparatus for removing data, as disclosed by Hong. Doing

so would provide an apparatus for removing unnecessary data in communication networks, in which, by removing the unnecessary data, the components of the receiving data (such as hardware and software) are protected.

6. Claims 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hagiawara and Parr as applied to claims 1 and 6 above, and further in view of Hurt (U.S. Pat. No. 6,954,885).

As to claim 14, Hagiawara (figs. 1-3) discloses a data transmission system comprising: a data transmission device (i.e., main controller 2) for transmitting data elements to a downstream device; a data reception device (i.e., nodes 3-1 to 3-n) for receiving1data elements from the downstream device, the data reception device including: an input CRC checking device (see figure 3; 30) coupled to receive the data elements from the downstream device; an output CRC (35) checking device coupled to receive the data elements from the memory device for checking the validity of the data elements based on the CRC associated with each data element.

Hagiawara does not explicitly disclose a memory device coupled to the input CRC checking device for storing data elements. However, the limitations are obvious and well known in the art, as evidenced by Hurt (U.S. Pat. No. 6,954,885). See col. 30, lines 30-60.

Therefore, it would have been obvious to a person of ordinary skill in the art, at the time of the invention to modify Hagiawara by including a memory device for storying counter values, as disclosed by Hurt. Techniques that can be used to efficiently code data with shorter processing delays.

As to claim 15, Hagiawara does not explicitly disclose the input CRC checking device notifies the data transmission device that at least one data element received by the data reception

device is invalid. However, the limitation is obvious and well known in the art, as evidenced by Parr (see paragraph [0023 and 0028]). See the motivation for the same reason disclosed in claim 1 above.

As to claims 16 and 19, Hagiawara does not explicitly disclose a memory device including a FIFO device. However, the limitations are obvious and well known in the art, as evidenced by Hurt (U.S. Pat. No. 6,954,885). See col. 30, lines 30-60.

As to claims 17, 18 and 20, Hagiawara (figs. 1) show a system, wherein the data reception device (nodes 3-1 to 3-n) includes a first data element processing path and a second data element processing path for processing different portions of the received data elements.

Response to Arguments

7. Applicant's arguments filed 7/18/200 have been fully considered but they are not persuasive.

On pages 2-3 of remarks, Applicant argues that Hagiawara does not teach "a transmission device for transmitting command data elements to a downstream device" and "a reception device for receiving response data elements from the downstream device" wherein "the reception device include[ing]es a protocol checking device for checking at least one state of the response data elemeuts to determine the validity or" the at least one state of the response data elements."

However, the examiner respectfully disagrees because Hagiawara clearly discloses the following: a transmission device (i.e., main controller 2) for transmitting command data elements to a downstream device, the command data elements being generated and transmitted according to a predetermined protocol; and a reception device (i.e., nodes 3-1 to 3-n) for receiving response data elements from the downstream device, the reception device including a protocol checking

device for checking at least one state of the response data elements to determine the validity of the at least one state of the response data elements col. 3, lines 10-49).

On pages 4-5 of remarks, Applicant argues that, Hagiawara does not teach "performing a parity check of the data element to determine whether the data element is valid." Hagiawara does not teach "generating a CRC for the data element." Hagiawara does not teach "corrupting the generation of the CRC if the parity check performed determines that the data element is invalid."

However, the examiner respectfully disagrees because Hagiawara clearly disclose the limitations of the claims: an input device (i.e., input circuit 30) for receiving a data element including parity information; a parity check device (i.e., CRC check 33) for checking the parity information of the data element to determine whether the data element is valid; a CRC generator (i.e., CRC error code addition 39) coupled to the parity check device (33) for generating a CRC for the data element. In addition, Hagiawara (fig. 3) discloses an output device (35) for transmitting the data element with the parity information and CRC to a downstream device over a transmission link (col. 3, lines 60 through col. 4 line 5).

On pages 6-8 of remarks, Applicant argues that, Hagiawara does not teach "an input device for receiving a data element including parity information. Hagiawara does not disclose that the received communication data includes parity information. Hagiawara does not teach "a parity check device for checking the parity information of the data element to determine whether the data element is valid."

However, the examiner respectfully disagrees because Hagiawara (figs. 1- 3;col. 3, lines 60 through col. 4 line 5) clearly disclose the limitations of the claims.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks, Washington, D.C. 20231

or faxed to: (703) 872-9306 for all formal communications.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fritz Alphonse, whose telephone number is (571) 272-3813. The examiner can normally be reached on M-F, 8:30-6:00, Alt. Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jacques Louis-Jacques, can be reached at (571) 272-6962.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-3824

Information regarding the status of an application may also be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Fritz Alphonse

Art Unit 2133

September 25, 2007

JACQUES LOUIS-JACQUES
SUPERVISORY PATENT EXAMINER
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